# Contents


Alexander, K.I., Thompson, K.: The Effect of Clipping Frequency on the Competitive Interaction Between Two Perennial Grass Species . . . 251
Aljaro, M.E., s. Montenegro, G., et al. . . . 235
Allemand, R., s. Boulétreau-Merle, J., et al. . . . 323
Araya, S., s. Montenegro, G., et al. . . . 235
Arnold, S.J., s. Feder, M.E. . . . 93
Avila, G., s. Montenegro, G., et al. . . . 235
Baalen, J. van: Germination Ecology and Seed Population Dynamics of *Digitalis purpurea* . . . 61
Bates, L.M., Hall, A.E.: Relationships Between Leaf Water Status and Transpiration of Cowpea with Progressive Soil Drying 285
Beardall, J., s. Raven, J., et al. . . . 68
Berendse, F.: Competition Between Plant Populations with Different Rooting Depths. III. Field Experiments . . . 50
Billings, W.D., Luken, J.O., Mortensen, D.A., Peterson, K.M.: Arctic Tundra: A Source or Sink for Atmospheric Carbon Dioxide in a Changing Environment? . . . 7
Bohl, E.: Food Supply and Prey Selection in Planktivorous Cyprinidae . . . 134
Boulétreau-Merle, J., Allemand, R., Cohet, Y., David, J.R.: Reproductive Strategy in *Drosophila melanogaster*: Significance of a Genetic Divergence Between Temperate and Tropical Populations . . . 323
Britton, R.H., Moser, M.E.: Size Specific Predation by Herons and its Effect on the Sex-Ratio of Natural Populations of the Mosquito Fish *Gambusia affinis* Baird and Girard . . . 146
Callaghan, W.M., s. Schroeder, L.A. . . . 238
Carpenter, S.R.: Stemflow Chemistry: Effects on Populations Dynamics of Detritivorous Mosquitoes in Tree-Hole Ecosystems . . . 1
Chippendale, G.M., s. Takeda, M. . . . 386
Cohet, Y., s. Boulétreau-Merle, J., et al. . . . 323
Connor, M.S., Edgar, R.K.: Selective Grazing by the Mud Snail *Ilyanassa obsoleta* . . . 271
Cothran, M.L., s. Gresens, S.E., et al. . . . 281
Creese, R.G., Underwood, A.J.: Analysis of Inter- and Intra-Specific Competition Amongst Intertidal Limpets with Different Methods of Feeding . . . 337
Cuffney, T.F., s. Wallace, J.B., et al. . . . 197
David, J.R., s. Boulétreau-Merle, J., et al. . . . 323
Edgar, R.K., s. Connor, M.S. . . . 271
Feder, M.E., Arnold, S.J.: Anaerobic Metabolism and Behavior During Predatory Encounters Between Snakes (*Thamnophis elegans*) and Salamanders (*Plethodon jordani*) . . . 93
Field, C., s. Merino, J., et al. . . . 208
Finke, M.D., s. Lederhouse, R.C., et al. . . . 296
Fleming, T.H.: Parallel Trends in the Species Diversity of West Indian Birds and Bats . . . 56
Franco-Vizcaino, E., s. Virginia, R.A. et al. . . . 120
Freed, A.N.: A Treefrog's Menu: Selection for an Evening's Meal . . . 20
Geller, G.N., Smith, W.K.: Influence of Leaf Size, Orientation, and Arrangement on Temperature and Transpiration in Three High-Elevation, Large-Leafed Herbs . . . 227
Gottschlich, D.E., Smith, A.P.: Convective Heat Transfer Characteristics of Toothed Leaves . . . 418
Grace, J.B., Wetzel, R.G.: Variations in Growth and Reproduction Within Populations of two Rhizomatous Plant Species: *Typha latifolia* and *Typha angustifolia* . . . 258
Greene, H.W., s. Jaksić, F.M., et al. . . . 152
Gresens, S.E., Cothran, M.L., Thorp, J.H.: The Influence of Temperature on the Functional Response of the Dragonfly *Celithemis fasciata* (Odonata: Libellulidae) . . . 281
Griffiths, H., s. Raven, J., et al. . . . 68
Hadeler, K.P., Mottoni, P. de, Tesei, A.: Mimetic Gain in Batesian and Müllerian Mimicry . . . 84
Hall, A.E., s. Bates, L.M. . . . 285
Hall, A.E., s. Schulze, E.-D., et al. . . . 141
Haselwandter, K., Read, D.J.: The Significance of a Root-Fungus Association in two *Carex* Species of High-Alpine Plant Communities . . . 352
Hassall, M., Rushton, St.P.: The Role of Coprophagy in the Feeding Strategies of Terrestrial Isopods . . . 374
Hayes, J.L.: Diapause and Diapause Dynamics of *Colias alexandra* (Lepidoptera: Pieridae) . . . 317
Heldmaier, G., s. Rismiller, P.D. . . . 222
Holm, T.F., s. Statzner, B. . . . 290
Howe, H.F., Richter, W.M.: Effects of Seed Size on Seedling Size in *Virola surinamansis*; a Within and Between Tree Analysis . . . 347
Jain, S.K., s. Rai, K.N. . . . 399
Jaksić, F.M., Greene, H.W., Schwenk, K., Seib, R.L.: Predation upon Reptiles in Mediterranean Habitats of Chile, Spain and California: A Comparative Analysis . . . 152
Jarrell, W.M., s. Virginia, R.A., et al. . . . 120
Kingsolver, J.G., Moffat, R.J.: Thermoregulation and the Determinants of Heat Transfer in *Colias* Butterflies . . . 27
Kitching, R.L., s. Zalucki, M.P. . . . 201
Körner, Ch.: $CO_2$ Exchange in the Alpine Sedge *Carex curvula* as Influenced by Canopy Structure, Light and Temperature 98
Kozlowski, T.T., s. Norby, R.J. . . . 34
Lange, O.L., s. Schulze, E.-D., et al. . . . 141
Lauenroth, W.K., s. Sala, O.E. . . . 301
Lawrence, W.S.: Sexual Dimorphism in Between and Within Patch Movements of a Monophagous Insect: *Tetraopes* (Coleoptera: Cerambycidae) . . . 245
Lechowicz, M.J.: Ecological Trends in Lichen Photosynthesis 330
Lechowicz, M.J., s. Zimmerman, J.K. . . . 305
Lederhouse, R.C., Finke, M.D., Scriber, J.M.: The Contributions of Larval Growth and Pupal Duration to Protandry in the Black Swallowtail Butterfly, *Papilio polyxenes* . . . 296
Luken, J.O., s. Billings, W.D., et al. . . . 7
MacKay, P.: The Effect of Predation of Western Widow Spiders (Areneae: Theridiidae) on Harvester Ants (Hymenoptera: Formicidae) . . . 406
Malanson, G.P., O'Leary, J.F.: Post-Fire Regeneration Strategies of Californian Coastal Sage Shrubs . . . 355
McQuaid, C.D.: The Influence of Desiccation and Predation on Vertical Size Gradients in Populations of the Gastropod *Oxystele variegata* (Anton) on an Exposed Rocky Shore . . 123
Merino, J., Field, C., Mooney, H.A.: Construction and Maintenance Costs of Mediterranean-climate Evergreen and Deciduous Leaves I. Growth and $CO_2$ Exchange Analysis . . . 208
Moffat, R.J., s. Kingsolver, J.G. . . . 27
Montenegro, G., Araya, S., Aljaro, M.E., Avila, G.: Seasonal Fluctuations of Vegetative Growth in Roots and Shoots of Central Chilean Shrubs . . . 235
Mooney, H.A., s. Merino, J., et al. . . . 208
Morse, D.H.: The Turnover of Milkweed Pollinia on Bumble Bees, and Implications for Outcrossing . . . 187
Mortensen, D.A., s. Billings, W.D., et al. . . . 7
Morton, A.C.: The Effects of Marking and Capture on Recapture Frequencies of Butterflies . . . 105
Moser, M.E., s. Britton, R.H. . . . 146
Mottoni, P. de, s. Hadeler, K.P., et al. . . . 84
Muller, W.H., s. Nilsen, E.T. . . . 79
Murray, B.G. Jr.: On the Meaning of Density Dependence . . 370
Nentwig, W.: Why Do Only Certain Insects Escape from a Spider's Web? . . . 412
Nilsen, E.T., Muller, W.H.: The Influence of Photoperiod on Drought Induction of Dormancy in *Lotus scoparius* . . . 79
Nilsson, I.N., Nilsson, S.G.: Turnover of Vascular Plant Species on Small Islands in Lake Möckeln, South Sweden 1976–1980 128

Nilsson, S.G., s. Nilsson, I.N. . . . . 128
Norby, R.J., Kozlowski, T.T.: The Role of Stomata in Sensitivity of *Betula papyrifera* Seedlings to $SO_2$ at Different Humidities 34
Norton-Griffiths, M., s. Sinclair, A.R.E. . . . . 364
O'Leary, J.F., s. Malanson, G.P. . . . . 355
Ostfeld, R.S.: Foraging Strategies and Prey Switching in the California Sea Otter . . . . . 170
Parker, M.A.: Association With Mature Plants Protects Seedlings From Predation in an Arid Grassland Shrub, Gutierrezia microcephala . . . . . 276
Peterson, K.M., s. Billings, W.D., et al. . . . . 7
Poole, A.: Brood Reduction in Temperate and Sub-Tropical Ospreys . . . . . 111
Prevett, J.P., s. Thomas, V.G. . . . . 359
Rai, K.N., Jain, S.K.: Population Biology of *Avena* IX. Gene Flow and Neighborhood in Relation to Microgeographic Variation in *Avena barbata* . . . . . 399
Ratsch, H.C., s. Taylor, G.E. Jr., et al. . . . . 179
Raven, J., Beardall, J., Griffiths, H.: Inorganic C-Sources for *Lemanea, Cladophora* and *Ranunculus* in a Fast-Flowing Stream: Measurements of Gas Exchange and of Carbon Isotope Ratio and their Ecological Implications . . . . . 68
Read, D.J., s. Haselwandter, K. . . . . 352
Richter, W.M., s. Howe, H.F. . . . . 347
Risebrow, A.J., s. Townsend, C.R. . . . . 293
Rismiller, P.D., Heldmaier, G.: The Effect of Photoperiod on Temperature Selection in the European Green Lizard, *Lacerta viridis* . . . . . 222
Roland, J.: Melanism and Diel Acativity of Alpine *Colias* (Lepidoptera: Pieridae) . . . . . 214
Rushton, St.P., s. Hassall, M. . . . . 374
Russ, G.R.: Overgrowth in a Marine Epifaunal Community: Competitive Hierarchies and Competitive Networks . . . 12
Sala, O.E., Lauenroth, W.K.: Small Rainfall Events: An Ecological Role in Semiarid Regions . . . . . 301
Schlichter, D.: Epidermal Nutrition of the Alcyonarian *Heteroxenia fuscescens* (Ehrb.): Absorption of Dissolved Organic Material and Lost Endogenous Photosynthates . . . . . 40
Schoen, D.J.: Male Reproductive Effort and Breeding System in an Hermaphroditic Plant . . . . . 255
Schoener, T.W., Slade, J.B., Stinson, C.H.: Diet and Sexual Dimorphism in the Very Catholic Lizard Genus, *Leiocephalus* of the Bahamas . . . . . 160
Schroeder, L.A., Callaghan, W.M.: Effects of Temperature on the Energy Budgets of *Hydra pseudoligactis* . . . . . 238
Schulze, E.-D., Hall, A.E., Lange, O.L., Walz, H.: A Portable Steady-State Porometer for Measing the Carbon Dioxide and Water Vapour Exchanges of Leaves Under Natural Conditions . . . . . 141
Schwenk, K., s. Jaksić, F.M., et al. . . . . 152
Scriber, J.M., s. Lederhouse, R.C., et al. . . . . 296
Seib, R.L., s. Jaksić, F.M., et al. . . . . 152
Shapiro, A.M.: Survival of Refrigerated *Tatochila* Butterflies (Lepidoptera: Pieridae) as an Indicator of Male Nutrient Investment in Reproduction (Short Communication) . . . . . 139
Sinclair, A.R.E., Norton-Griffiths, M.: Does Competition or Facilitation Regulate Migrant Ungulate Populations in the Serengeti? A Test of Hypotheses . . . . . 364
Slade, J.B., s. Schoener, T.W., et al. . . . . 160
Smith, A.P., s. Gottschlich, D.E. . . . . 418
Smith, W.K., s. Geller, G.N. . . . . 227
Statzner, B., Holm, T.F.: Morphological Adaptations of Benthic Invertebrates to Stream Flow – An Old Question Studied by Means of a New Technique (Laser Doppler Anemometry) 290
Stinson, C.H., s. Schoener, T.W., et al. . . . . 160
Sullivan, D.S., s. Sullivan, T.P. . . . . 264
Sullivan, T.P., Sullivan, D.S.: Population Dynamics and Regulation of the Douglas Squirrel (*Tamiasciurus douglasii*) with Supplemental Food . . . . . 264
Takeda, M., Chippendale, G.M.: Phenological Adaptations of a Colonizing Insect: The Southwestern Corn Borer, *Diatraea grandiosella* . . . . . 386
Taylor, G.E. Jr., Tingey, D.T., Ratsch, H.C.: Ozone Flux in *Glycine max* (L.) Merr.: Sites of Regulation and Relationship to Leaf Injury . . . . . 179
Tenhunen, J.D.: The Diurnal Course of Leaf Gas Exchange of the $C_4$ Species *Amaranthus retroflexus* Under Field Conditions in a "Cool" Climate: Comparsion with the $C_3$ Species *Glycine max* and *Chenopodium album* . . . . . 310
Tesei, A., s. Hadeler, K.P. . . . . 84
Thomas, V.G., Prevett, J.P.: The Role of Horsetails (Equisetaceae) in the Nutrition of Northern-Breeding Geese . . . . 359
Thompson, K., s. Alexander, K.I. . . . . 251
Thorp, J.H., s. Gresens, S.E., et al. . . . . 281
Tingey, D.T., s. Taylor, G.E. Jr., et al. . . . . 179
Townsend, C.R., Risebrow, A.J.: The Influence of Light Level on the Functional Response of a Zooplanktonivorous Fish 293
Underwood, A.J., s. Creese, R.G. . . . . 337
Virginia, R.A., Jarrell, W.M., Franco-Vizcaino, E.: Direct Measurement of Denitrification in a *Prosopis* (Mesquite) Dominated Sonoran Desert Ecosystem . . . . . 120
Wallace, J.B., Webster, J.R., Cuffney, T.F.: Stream Detritus Dynamics: Regulation by Invertebrate Consumers . . . . . 197
Walz, H., s. Schulze, E.-D., et al. . . . . 141
Webster, J.R., s. Wallace, J.B., et al. . . . . 197
Wetzel, R.G., s. Grace, J.B. . . . . 258
Willmer, P.G.: Thermoregulatory Mechanisms in Sarcophaga 382
Zalucki, M.P., Kitching, R.L.: Temporal and Spatial Variation of Mortality in Field Populations of *Danaus plexippus* L. and *D. chrysippus* L. Larvae (Lepidoptera: Nymphalidae) 201
Zimmerman, J.K., Lechowicz, M.J.: Responses to Moisture Stress in Male and Female Plants of *Rumex acetosella* L. (Polygonaceae) . . . . . 305
Zimmerman, M.: Optimal Foraging: Random Movement by Pollen Collecting Bumblebees . . . . . 394

Indexed in Current Contents